

This listing of claims will replace all prior versions, or listings, of the claims in this application.

Listing of Claims:

Claims 1-88 (canceled).

89 (currently amended). Displacement unit according to claim ~~88~~ 126, wherein said at least one first signaling and monitoring element is a limit switch, a proximity switch, a displacement measuring system, or a position detection system, ~~a vibration sensor, or force sensor.~~

E 90 (currently amended). Displacement unit according to claim ~~88~~ 126, wherein said at least one first signaling and monitoring element comprises said control module.

91 (currently amended). Displacement unit according to claim 126, wherein at least one of said components comprises at least one fixing device for said at least one signaling and monitoring element.

Claim 92 (canceled).

93 (currently amended). Displacement unit according to claim 139, wherein said at least first one signaling and monitoring element and said at least one pressure fluid control valve and said control module are arranged displaceably on said electrical distribution bus bars.

Claims 94-110 (canceled).

111 (previously amended). Displacement unit according to claim 126, wherein said at least one pressure fluid control valve is a servo valve.

Claim 112 (canceled).

113 (previously amended). Displacement unit according to claim 126, wherein said drive comprises at least one transmission element connected with one of the said components.

Claims 114 and 115 (canceled).

116 (previously amended). Displacement unit according to claim 126, wherein said at least one pressure fluid control valve comprises said control module.

117 (previously amended). Displacement unit according to claim 126, wherein a first one of said components is arranged to move relatively to a frame-shaped second one of said components so as to be relatively displaceable by means of said drive.

Claims 118-120 (canceled).

121 (currently amended). Displacement unit according to claim ~~126~~ 149, wherein the input device comprises a touch screen combined with a display element.

122 (currently amended). Displacement unit according to claim ~~126~~ 121, wherein said display element is a display light-emitting diode.

123 (previously amended). Displacement unit according to claim 126, comprising wireless means for transmitting data from said control unit to said central control unit.

124 (canceled).

125 (currently amended). Displacement unit according to claim 126, comprising a data glove connected by inputs and outputs to said control unit or said central control unit.

126 (currently amended). A displacement unit for a manipulation system, which comprises


- (a) components which are adjustable relative to each other,
- (b) a drive actuated by pressure fluid for adjusting the components, the drive having

- (1) an outer surface,

- (c) a guiding device for one of the components,

- (d) a control unit, the control unit having

- (1) at least one pressure fluid control valve connected to the drive for actuating the drive by the pressure fluid,



- (2) a control module cooperating with the at least one pressure fluid control valve and comprising a logic unit which processes logic and bus information in order to determine and monitor the position of a respective one of the adjustable components and displacement parameters of the displacement unit, the control module being connectable to a central control unit by an interface, and the at least one pressure fluid control valve and the control module being mounted directly on the outer surface of the drive,

- (3) a display element, and

- ~~(4) an input device, and~~

- (e) at least one first signaling and monitoring element connected to, and cooperating with, said control unit for

detecting the position of the adjustable component during the operation of the displacement unit, the at least one first signaling and monitoring element being disposed in the component; and

- (f) at least one second signaling and monitoring element connected to, and cooperating with, said control unit, for detecting and monitoring displacement parameters during the operation of the displacement unit, and both first and second signaling and monitoring elements being connected to the control unit or central control unit for transmitting actual values of position and displacement parameter to the control unit or central control unit.

127 (previously amended). Displacement unit according to claim 126, wherein an interface of said control unit comprises inputs and outputs for signals and is a plug-in coupling device, said control unit is connectable by said coupling device to a bus line configured as central connecting line, to cooperate with said central control unit.

128 (previously added). Displacement unit according to claim 126, wherein said drive comprises at least one transmission element connected with one of the said components.

129 (previously amended). Displacement unit according to claim 128, wherein said one component is arranged to move relatively to a frame-shaped other component so as to be relatively displaceable by means of said guiding device.

130 (previously amended). Displacement unit according to claim 126, wherein said interface of said control unit comprises said inputs and outputs for signals and is built by said plug-in coupling device, said control unit is connectable by said coupling device to a bus line configured as central connecting line, to cooperate with an external input and output device.

131 (previously added). Displacement unit according to claim 126, wherein said control unit comprises a memory for storing individual motions of said drive.

132 (previously added). Displacement unit according to claim 126, wherein said control unit comprises a control power source.

133 (previously added). Displacement unit according to claim 126, wherein said control unit comprises an interface for an external power source.

134 (canceled).

135 (currently amended). Displacement unit according to claim ~~134~~ 126, wherein said logic ~~element is a~~ unit consists of at least one microprocessor connected by control lines and conductor lines with said interface.

136 (previously added). Displacement unit according to claim 135, wherein said microprocessor is connected by control lines and conductor lines with an evaluation unit and a driver and a D/A converter and a memory for storing individual motions of the components.

137 (canceled).

138 (previously added). Displacement unit according to claim 126, wherein said drive comprises an electric distribution bus bar.

139 (previously amended). Displacement unit according to claim 138, wherein control lines are integrated in said distribution bus bar.

140 (currently amended). Displacement unit according to claim ~~126~~ 138, wherein said drive comprises a pressure fluid

distribution bar.

141 (previously added). Displacement unit according to claim 140, wherein lines for said pressure fluid are integrated in said distribution bar.

142 (previously amended). Displacement unit according to claim 140, wherein said pressure fluid control valve is arranged on or in the pressure fluid distribution bar and is connectable by orifices with orifices for said pressure fluid provided in said distribution bar.

143 (previously added). Displacement unit according to claim 126, wherein said control unit is directly connected at said drive, said drive comprising a cylinder pipe and end face closing elements positioned so as to be adjustable relative to one another.

144 (currently amended). Displacement unit according to claim ~~126~~ 149, wherein said input device is a keyboard.

145 (currently amended). Displacement unit according to claim ~~126~~ 149, wherein said input device is a touch screen.

146 (previously added). Displacement unit according to claim 142, wherein said electric distribution bus bar and the pressure fluid distributor bar for receiving said control module and pressure fluid control valve are disposed on at least one of said components, and control lines and conductor lines are integrated therein, the electric distribution bus bar and pressure fluid distribution bar being provided with orifices in order to connect with said control module and said at least one pressure fluid control valve as well as said drive.

147 (new). Displacement unit according to claim 126, wherein said at least one second signaling and monitoring element is a vibration sensor or force sensor.

148 (new). Displacement unit according to claim 126, wherein said at least one second signaling and monitoring element is arranged on one of the components.

149 (new). Displacement unit according to claim 126, wherein said the control unit has an input device for permitting a dialog between an operator and the control unit directly at the displacement unit.
